Speizer, F.E., Ferris, B., Bishop, M.M., Spengler, J. "Respiratory Disease Rates and Pulmonary Function in Children with NO2 Exposure" American Review of Respiratory Disease **121(1): 3-10, 1980.**

SUMMARY: As part of a long-range, prospective study of the health effects of air pollution, approximately 8,000 children from 6 yrs to 10 yrs of age from 6 communities had questionnaires completed by their parents and had simple spirometry performed in school. Comparisons were made between children living in homes with gas stoves and those living in homes with electric stoves. Children from households with gas stoves had a greater history of respiratory illness before age 2 (average difference, 32.5/1,000 children) and small but significantly lower levels of FEV1 and FVC corrected for height (average difference, 16 ml and 18 ml, respectively). These findings were not explained by differences in social class or by parental smoking habits. Measurements taken in the homes for 24-h periods showed that NO2 levels were 4 to 7 times higher in homes with gas stoves than in homes with electric stoves. However, these 24-h measurements were generally well below the current federal 24-h outdoor standard of 100 ug/m3. Short-term peak exposures, which were in excess of 1,100 ug/m3, regularly occurred in kitchens. Further work will be required to determine the importance of these short-term peaks in explaining the effects noted.

2023510150

Source: https://www.industrydocuments.ucsf.edu/docs/ptyx0000